REMARKS/ARGUMENTS

The Pending Claims

Claims 1, 6, 8, and 15-24 are pending. Claims 1, 6, and 8 are currently being examined and are directed to a magnetic carrier for a biological substance, such as a nucleic acid. Claims 15-24 are currently withdrawn.

Amendment to the Claims

Claim 1 has been amended to recite that the silica coating is adhered to the surface of the particle to form the outermost layer of the particle, as supported by the specification at, for example, page 16, lines 24-30. No new matter has been added by way of this amendment.

Summary of the Office Action

Claims 1, 6, and 8 are rejected under 35 U.S.C. § 102(b), as allegedly anticipated by Takiguchi et al. (U.S. Patent 5,137,796). Reconsideration of this rejection is hereby requested.

Discussion of the Anticipation Rejection

Takiguchi et al. allegedly discloses magnetic particles with a saturation magnetization of 60-90 emu/g and a coercive force of 40-80 Oe, which falls within the claimed ranges. The particles reportedly are iron oxide coated with silica and are 5 μm or less in size. The Office contends that the particle of Takiguchi et al. inherently is capable of binding a nucleic acid because the particle comprises the same materials and physical properties as the claimed magnetic particle (Office Action, page 3, first paragraph).

Claims 1, 6, and 8 are directed to a magnetic carrier for a biological substance, which is a ferromagnetic iron oxide particle coated with silica. The pending claims have been amended to clarify that the silica coating is adhered to the surface of the particle to form the outermost layer of the particle. The silica coating can bind biological substances, thereby enabling the collection of particles to which biological substances are bonded.

Applicants previously pointed out that Takiguchi et al. relates to a magnetic developer obtained by mixing a toner, containing a binder resin and magnetic particles, with a silica fine

powder. Takiguchi et al. discloses a mixed powder of a magnetic toner and a silica fine powder, but the silica powder in the magnetic developer of Takiguchi et al. *does not adhere* to the surface of the magnetic particle to form a coating (col. 20, lines 39-43; col. 25, line 52, through col. 26, line 2). As such, Takiguchi et al. does not disclose a magnetic particle in which the silica coating is adhered to the surface of the particle, as required by the amended pending claims.

According to Takiguchi et al., "the silica fine powder is disposed between the toner particles and the [developing] sleeve surface, whereby the abrasion of the toner particle is remarkably reduced" (col. 20, lines 39-43). The Office Action states that the claims "fail to exclude other elements such as a 'developing sleeve surface' which covers the silica coated magnetic particles as taught in Takiguchi et al." (page 4, second full paragraph). The claims have been amended to recite that the silica coating forms the outermost layer on the particles. With the inclusion of a developing sleeve, the silica coating does *not* form the outermost layer of the particle of Takiguchi et al., as required by the pending claims.

Thus, the magnetic particles of Takiguchi et al. and the pending claims are structurally different. In view of these structural differences, i.e., since Takiguchi et al. does not disclose the "same characteristics" of a silica coating on a ferromagnetic iron oxide particle as required by the pending claims, the resulting magnetic toner of Takiguchi et al. cannot be presumed to have the same functional properties as the magnetic carrier defined by the pending claims, especially to be capable of binding a nucleic acid (item (iii) of claims 1, 6, and 8 (and withdrawn claims 15-24)). For these reasons, Takiguchi et al. does not anticipate the subject matter of claims 1, 6, and 8 (or withdrawn claims 15-24).

Moreover, the present invention, as defined by the pending claims, is not obvious in view of Takiguchi et al. The magnetic particle of Takiguchi et al. is used for a developer to be used in an electrophotographic image-forming method, and Takiguchi et al. is not directed to the isolation of a biological substance. As such, one of ordinary skill in the art would not have any credible reason to modify the magnetic particle or magnetic toner of Takiguchi et al. in such a way so as to provide a silica coating that can bind a nucleic acid, as required by the pending claims. Therefore, the magnetic carrier as defined by the pending claims is not obvious in view of Takiguchi et al.

Since the present invention, as defined by claims 1, 6, and 8 (and withdrawn claims 15-24), is novel and unobvious in view of Takiguchi et al., Applicants respectfully request the withdrawal of the rejection based on Takiguchi et al.

Conclusion

Applicants respectfully submit that the patent application is in condition for allowance. If, in the opinion of the Examiner, a telephone conference would expedite the prosecution of the subject application, the Examiner is invited to call the undersigned attorney.

Respectfully submitted,

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